One-Stop Hurricane Resource Guide

Get Hurricane Ready Rhode Island!

GetHurricaneReadyRI.org

Strengthening Homes and Safeguarding Families

FLASH®

FEDERAL ALLIANCE FOR SAFE HOMES

www.flash.org

Surveying the damage on the Barrington Bridge in the aftermath of The Great Hurricane of 1938.

Dear Rhode Islanders,

The State of Rhode Island and the Federal Alliance for Safe Homes – FLASH® are pleased to present this One-Stop Hurricane Resource Guide to citizens of Rhode Island as part of the "Get Hurricane Ready Rhode Island" public service campaign. This quick reference guide provides the latest information to help you and your family prepare for a hurricane.

No one knows when Rhode Island will be struck by its next hurricane but scientists and disaster safety officials agree that it's not a question of "if," only a matter of "when." And we all know that preparing for a hurricane in advance will help your family minimize the risk of injury or property damage. In this edition of the One-Stop Hurricane Resource Guide you will find contact information for emergency management officials, the National Weather Service, the local chapters of the American Red Cross and more. The Consumer Safety section includes information about preparing your home and family for a hurricane and how to stay safe in post-storm conditions like power outages. You'll find valuable tips for helping prepare the elderly, persons with disabilities and even your pets.

Together, FLASH and the State of Rhode Island are committed to reducing the impact of hurricanes by helping you prepare, strengthen your home and safeguard your family. We encourage every Rhode Islander to get a plan before disaster strikes. Preparing is easier than you think and this One-Stop Hurricane Resource Guide can serve as a helpful tool to get you started.

For more information, visit us on the web at:
www.GetHurricaneReadyRI.org ,
www.FLASH.org *and* www.riema.ri.gov/.

Sincerely,

Governor Donald L. Carcieri

Leslie Chapman-Henderson
President & CEO Federal
Alliance for Safe Homes
(FLASH®)

The History of Hurricanes in Rhode Island

2008 marks the 70th anniversary of The Great Hurricane of 1938, one of America's deadliest disasters. The Hurricane of 1938 killed more than 680 people, caused massive flooding and resulted in $306 million in damages ($4.7 billion in 2008 dollars). At one point a Category 5 hurricane on the Saffir-Simpson Hurricane Rating Scale, the Hurricane of 1938 came ashore as a Category 3 storm with wind gusts as high as 180 mph in southeastern New England. In 1954, Hurricane Carol, a Category 3 hurricane with winds of 115 mph, killed 68 people and caused $460 million in damage ($3.7 billion in 2008 dollars).

While Rhode Island hasn't experienced a hurricane since August 1991, it is at risk for hurricanes, and potentially catastrophic ones like those described above.

Regardless of whether the next hurricane rivals the great hurricanes of 1938 or 1954, any hurricane can threaten lives and cause severe damage to homes and buildings. Hurricane Bob, which struck Rhode Island on August 19, 1991, had peak wind gusts of 125 mph and caused a storm surge in Narragansett Bay. Many trees were downed and much of the state was without power for days.

And the potential effects of tropical storms on Rhode Island should never be underestimated. In 1955 tropical storms Connie and Diane struck only five days apart. Diane brought 10-14 inches of rain to the Blackstone Valley, causing one of the worst flood disasters in the state's history and inundating parts of Woonsocket, Cumberland, Lincoln, Central Falls and Pawtucket.

With the amount of coastal development that has occurred in Rhode Island during the past several decades, experts predict that a 1938 or 1954-magnitude hurricane would cause devastating property losses in Rhode Island. Yet, these losses can be significantly reduced if people take steps to strengthen their homes and protect their families against hurricane force winds.

Rhode Islanders are encouraged to follow the advice contained in this helpful One-Stop Hurricane Resource Guide so that we are all better prepared WHEN, not if, a hurricane strikes Rhode Island.

Developing a Family Action Plan

A family action plan can keep residents safe and out of harm's way in a severe weather event. Once the family develops and finalizes the action plan, be sure to practice it frequently.

- ❑ Discuss the type of hazards that could affect the family. Know the home's vulnerability to storm surge, flooding, wind and tornadoes.
- ❑ Determine if the home is located in a storm surge evacuation zone. If so, know exactly where to go to reach safe shelter, and know how to get there.
- ❑ If the home is located outside a storm surge evacuation zone, and the home is well constructed, its residents still need to have a hurricane plan.
- ❑ Locate a safe room or the safest areas in the home for each hurricane hazard. Sometimes the safest areas may not be in the home, but within the community.
- ❑ Determine escape routes from the home and a designated meeting place nearby.
- ❑ Designate an out-of-state contact so all family members have a single point of contact.
- ❑ Make a plan now for what to do with pets if the family needs to evacuate. Most hurricane shelters do not accept pets.
- ❑ Post emergency telephone numbers. Make sure children know how and when to call 9-1-1.
- ❑ Review insurance coverage as flood damage is not usually covered by homeowners insurance.
- ❑ Stock non-perishable emergency supplies and a disaster supply kit.
- ❑ Monitor NOAA weather radio for official, real-time weather information.
- ❑ Take First Aid, CPR and disaster preparedness classes.

Creating A Disaster Supply Kit

A well-stocked disaster supply kit can save untold hardships in an emergency situation. Be sure to gather the following items to ensure the family's basic comfort and well being.

- ❏ **Cash** - Banks and ATMs may not be open or available for extended periods.
- ❏ **Water** - at least one gallon daily per person for three to seven days.
- ❏ **Food** - at least enough for three to seven days, including:
  - ❏ non-perishable packaged or canned food/juices.
  - ❏ foods for infants or the elderly.
  - ❏ snack foods.
  - ❏ non-electric can opener.
  - ❏ vitamins.
- ❏ Paper plates/plastic utensils.
- ❏ Radio - Battery operated and NOAA weather radio.
- ❏ Blankets/Pillows, etc.
- ❏ Clothing - seasonal/rain gear/sturdy shoes.
- ❏ First Aid Kit/Medicines/Prescription Drugs.
- ❏ Special Items - for babies and the elderly.
- ❏ Toiletries/Hygiene items/Moisture wipes.
- ❏ Flashlight/Batteries/Glow sticks.
- ❏ Keys.
- ❏ Toys, Books and Games.
- ❏ Important documents in a waterproof container: insurance, medical records, bank account numbers, Social Security card, etc.
- ❏ Tools.
- ❏ Vehicle with full tank of gas and emergency supplies.
- ❏ Pet care items, including:
  - ❏ proper identification/immunization records/meds.
  - ❏ ample food and water.
  - ❏ a carrier or cage.
  - ❏ muzzle and leash.

All Hazards NOAA Weather Radio

The National Weather Service's NOAA Weather Radio (NWR) provides critical lifesaving information for you and your family. NWR broadcasts warnings and post-event information for all types of hazards including:

- **Severe Weather** - such as hurricanes, tornadoes, floods;
- **Natural Disasters** - such as earthquake, forest fires, volcanic activity;
- **Technological Accidents** - such as chemical release, oil spill, nuclear power plant emergencies, maritime accidents, train derailments; and
- **National Emergencies** - such as terrorist attacks.

You can find weather radios* at many retail outlets, including electronics, department, sporting goods, and boat and marine accessory stores and their catalogs. Weather radios can also be purchased via the Internet from online retailers or directly from manufacturers.

For more information including a list of weather radio manufacturers, visit: **www.nws.noaa.gov/ nwr/nwrrcvr.htm**.

NWR Frequencies in Rhode Island

NWR is available at a frequency of 162.400 megahertz (MHz).

Properly Placing a NWR in the Home

Receivers should be placed near a window and away from (or in between) metal wall studs. Receivers may require a small external antenna in mobile homes or buildings with metal wall studs.

*NOAA weather radios are available at electronic stores. Prices range from approximately $30 to $100.

If local authorities or our Governor requests a voluntary evacuation (or if the threat dictates mandatory evacuation) of your coastal community please leave your home immediately by following the posted evacuation routes inland to safety or follow the posted signs to the nearest hurricane approved shelter. (For maps and locations see **www.riema.ri.gov**.) However if an evacuation of your community is not required, the Hurricane Preparedness Countdown can be useful in helping to increase personal safety and protection of property.

Pre-Hurricane Season (anytime before June 1)

- ❏ Learn the storm surge history and elevation of your area.
- ❏ Create a disaster supply kit.
- ❏ Develop a family action plan.
- ❏ Strengthen your home.
- ❏ Install straps, clips, anchors, braces, etc. to help secure roofing (visit **www.FLASH.org** for more information).
- ❏ Clear any dead vegetation and trim trees and shrubs around your home.
- ❏ Check for loose rain gutters and make sure they are not clogged.
- ❏ If you do not have protective shutters, stock plywood to cover your windows. If possible, cut plywood shutters to size for windows (visit **www.FLASH.org** for an instructive emergency board up video).
- ❏ Determine where to move your boat in case of emergency.
- ❏ Consider building a safe room.
- ❏ Review your insurance policy.

HURRICANE PREPAREDNESS COUNTDOWN

36 Hour Hurricane Watch: means there is a possibility of a hurricane event within 36 hours.

When this potential exists all Rhode Island residents should:

- ❑ Check often for official updates on the radio, TV, or NOAA Weather Radio.
- ❑ Activate family disaster plan.
- ❑ Make sure car has a full tank of fuel.
- ❑ Check medicine supplies.
- ❑ Fully charge cellphones and check flashlight/radio batteries.
- ❑ Secure important prescription medicines in waterproof containers.
- ❑ Secure lawn furniture and any other loose outdoor items.
- ❑ Wedge sliding glass doors to prevent lifting from their tracks.
- ❑ Move your boat if time permits.

24 Hour Hurricane Warning: means a hurricane WILL strike in 24 hours or LESS.

When this condition is predicted, all Rhode Island residents should:

- ❑ Plan for all outdoor pre-hurricane preparation to be completed prior to the onset of tropical storm force winds (sustained 39 MPH winds).
- ❑ Stay tuned to radio, TV and NOAA Weather Radio for official updates.
- ❑ Board or shutter windows.
- ❑ Board up garage and porch doors.

HURRICANE PREPAREDNESS COUNTDOWN

- ❑ Bring in outdoor pets.
- ❑ Fill bathtub and other large containers with water to ensure a supply for sanitary purposes.
- ❑ Turn off propane tanks and utilities.
- ❑ Unplug small appliances.
- ❑ Close all interior doors.

12 Hour Hurricane Warning: means sustained winds of at least 74 mph or greater are expected within 12 hours or less.

When this condition is predicted, all Rhode Island residents should:

- ❑ If in coastal or riverine areas move valuables to upper floors of the home.
- ❑ Turn up refrigerator thermostat to its coldest setting and keep door closed.
- ❑ Avoid using the phone, except for serious emergencies.
- ❑ Turn off and isolate computer equipment.
- ❑ Be prepared to seek refuge in a small interior room, closet or hallway on the lowest level of the home.
- ❑ Be aware that the calm "eye" of the hurricane is deceptive, the storm is not over.

Strengthening the Home*

Preparing a home for a hurricane requires time and attention. However, performing the following steps now could mean the difference between minor damage and total destruction:

Anchor

- ❑ Move anything from the yard that could become wind-borne debris. Ask neighbors to do the same.
- ❑ Replace gravel/rock-landscaping material with fire treated, shredded bark to reduce damage.
- ❑ Trim and anchor down foliage.
- ❑ Make sure the home has a wall to foundation (anchor bolts/re-bar) connection.

Brace

- ❑ Bolt all doors with foot and head bolts with a minmum one-inch bolt throw length.
- ❑ Reinforce the garage door and tracks with center supports.
- ❑ Brace all gable end framing with horizontal and vertical beams.

Cover

- ❑ Cover all large windows, doors, and especially patio doors with securely fastened, impact-resistant shutters with proper mounting fixtures or replace them with impact-resistant laminated window and door systems if possible.
- ❑ Make sure all doors and windows are properly caulked and weather-stripped.
- ❑ Install roof covering that is rated for hurricane force winds.

Strap

- ❑ Harness any free standing fixtures in the yard.
- ❑ Strap rafters/trusses to walls with hurricane straps/clips.

*For comprehensive details, please visit **www.blueprintforsafety.org**.

Emergency Board Up

FLASH, Inc. recommends that you install tested and approved shutters for the highest level of protection from wind-borne debris. However, the following basic recommendations can be used in extreme emergencies to add temporary protection to doors and windows:

- ❏ Count and measure the openings to be covered on your house including all windows, French doors, sliding glass doors and skylights. Measure each opening, horizontally from inside to inside of the exterior trim and vertically from the sill to the bottom of the top trim. Add 8-inches to the width and 8-inches to the height measurements so that the panel will overlap the wall framing around the opening.
- ❏ Tools: hand or circular saw, drill and drill bits, hammer and wrench.
- ❏ Plywood: 5/8" or greater exterior grade (CDX) plywood. Plywood sheets are generally 4' x 8', so your local building supply retailer can help you determine how many sheets to buy using the information about the number of openings you need to cover.
- ❏ More than one sheet may be necessary if you have any single opening larger than one 4' x 8' sheet of plywood.
- ❏ Hardware: double-headed nails, wood screws, bolts, wood or masonry anchors, nuts and large washers. A range of types of fasteners can be used to attach a plywood shutter. The type of fastener required will depend on the type of construction (wood, masonry, or concrete) and the type of exterior veneer (siding, brick or stucco).

Emergency Board Up *cont.*

- ❏ Spacing of fasteners: If the shortest dimension of the window or door is 4 feet or less, space fasteners at 6 inches on center. If the shortest dimension exceeds 4 feet, space fasteners at 3 inches on center.
- ❏ Mount plywood and fasten into place. Mounting the plywood with two fasteners (one on each corner) first then installing the remainder of fasteners will reduce the strain on the helper and facilitate set-up.
- ❏ Store plywood and other materials together in a location away from weather and harmful elements.

Hurricane Evacuation in Rhode Island

The state of RI uses a zoned evacuation concept for determination of the vulnerable populations residing in the twenty-one coastal communities. See **www.riema.ri.gov/** for specific evacuation information for your coastal community. Signed evacuation routes have been established for these communities and traffic control points have been identified statewide to facilitate this effort.

The amount of time needed to evacuate an area depends upon a variety of factors that include the size of the vulnerable population, high hazard areas and transportation routes. Evacuation is a difficult process not only for the evacuee who may spend hours waiting in traffic, but for those emergency officials who must devote their skills to ensuring residents are moving quickly and safely.

All Rhode Islanders who live in designated evacuation zones or mobile homes are encouraged to develop their own personal evacuation plans and identify local alternative family and community resources for safe shelter.

Hurricane Evacuation in Rhode Island *cont.*

Evacuation is never easy and evacuees should be prepared for the following:

- Extremely heavy traffic with slow highway speeds; residents in highly vulnerable areas should leave the area sooner rather than later;
- Access to gas stations, restaurants and restroom facilities will be severely limited;
- No one should enter an evacuation route without a full tank of gas;
- Evacuees should bring identification, insurance papers and other important documents;
- Evacuees should bring enough water, snack items, cash and medications;
- Evacuees must obey all special traffic signs and law enforcement orders;
- Disabled vehicles should be removed from the travel lanes, if possible;
- Dial 9-1-1 only when there is a life-threatening emergency;
- Motorists should avoid slowing down or stopping to talk to emergency workers except in a life-threatening emergency;
- Limited information will be available to motorists on the state highway frequency at AM 1630.

Power Outage

Whether a power outage in your home is caused by grid failure or severe weather, you can take the following steps to prepare and respond. Include power outages in your family disaster plan, identifying alternate means of transportation and routes to home, school or work.

- ❑ Keep extra cash on hand since an extended power outage may prevent you from withdrawing money from automatic teller machines or banks.
- ❑ Keep a supply of non-perishable foods, medicine, baby supplies and pet food as appropriate on hand. Allow one gallon of water per person per day.
- ❑ Avoid opening the refrigerator or freezer. Food should be safe as long as the outage lasts no more than 4-6 hours.
- ❑ Have one or more coolers for cold food storage, in case power outage is prolonged. Perishable foods should not be stored for more than two hours above 40 degrees Fahrenheit.
- ❑ Have an emergency power supply for anyone dependent on medical equipment requiring electricity.
- ❑ Keep a supply of flashlights, batteries, and a battery-powered radio on hand. Do not use candles as they pose a fire hazard.
- ❑ Connect only individual appliances to portable generators and never plug a generator into wall outlets.
- ❑ Use gas-powered generators only in well-ventilated areas.
- ❑ When driving, be careful at intersections - traffic lights may be out, creating a dangerous situation.

Power Outage *cont.*

- ❑ Turn off any electrical equipment that was in use prior to the power outage.
- ❑ Turn off all lights but one (to alert you when power resumes).
- ❑ Check on elderly neighbors, friends or relatives who may need assistance if weather is severe during the outage.
- ❑ Resist the temptation to call 9-1-1 for information - that's what your battery-powered radio is for.
- ❑ Don't plug emergency generators into electric outlets or hook them directly to your home's electrical system - as they can feed electricity back into the power lines, putting you and line workers in danger.
- ❑ Keep your car fuel tank at least half-full (gas stations rely on electricity to power their pumps).
- ❑ When power is restored, wait a few minutes before turning on major appliances to help eliminate further problems caused by a sharp increase in demand.

People with Disabilities

People with disabilities often require assistance and additional lead time in order to prepare for a disaster. The following list, while not exhaustive, provides some practical tips for those with special needs.

- ❑ **Register with local emergency management and fire departments.**
- ❑ Establish a personal support network. This network of friends, family and neighbors can assist in disaster preparations and getting you to a safe place.
- ❑ Post Emergency Instructions on the refrigerator to include medication dosages, necessary equipment and emergency contacts.
- ❑ Identify multiple evacuation routes at home and at work.
- ❑ Ask your employer to include and test these plans.
- ❑ Carry with you at all times emergency health information and emergency contacts (a medical alert tag or bracelet to identify your disability can prove helpful).
- ❑ Have an alternate means of communication, like a dry erase board or writing tablet and markers.
- ❑ When calling 9-1-1, tap the space bar to engage the TDD system.
- ❑ Install fire safety devices in the home, such as fire extinguishers and smoke alarms with a vibrating pad or flashing light.
- ❑ Consider installing an alarm with strobe light outside the home to alert neighbors in the event of an emergency.

People with Disabilities *cont.*

- ❑ Test alarms and extinguishers regularly and replace smoke alarm batteries every six months.
- ❑ Keep a flashlight, whistle or bell handy to signal whereabouts to others.
- ❑ Stock emergency supplies, such as batteries, blankets, cash, non-perishable foods, medications, water and a weather radio.

For more information on how to prepare children with special health care needs, please visit: **www.aap.org/disasters/**.

Q: What is a hurricane?

A: The National Hurricane Center defines a hurricane as a type of "tropical cyclone" or low-pressure system that generally forms in the tropics. The cyclone is accompanied by thunderstorms and, in the Northern Hemisphere, a counter-clockwise circulation of winds near the earth's surface.

Tropical cyclones are classified as follows:

Tropical Depression - An organized system of clouds and thunderstorms with a defined surface circulation and maximum sustained winds* of 38 mph (33 kt**) or less.

Tropical Storm - An organized system of strong thunderstorms with a defined surface circulation and maximum sustained winds of 39-73 mph (34-63 kt).

Hurricane - An intense tropical weather system of strong thunderstorms with a well defined surface circulation and maximum sustained winds of 74 mph (64kt) or higher.

*Sustained winds are defined as a one-minute average wind-measured at about 33 ft (10 meters) above the surface.

** 1 knot = 1 nautical mile per hour or 1.15 statute miles per hour. Abbreviated as "kt."

Q: What are the official dates of hurricane season?

A: The official season for the Atlantic Basin (Atlantic Ocean, Caribbean Sea and Gulf of Mexico) is from:
June 1 to November 30.

"Peak season" usually runs from mid-August to late October, but dangerous storms can happen any time.

Q: How are hurricanes rated?

A: The Saffir-Simpson Hurricane Scale is used to rate a hurricane's present intensity. This scale ranges from one to five and uses sustained wind speed to estimate the potential property damage and flooding from a hurricane landfall.

CATEGORY ONE
Wind Speed: 74-95 mph (64-82 kt)
Damage: No real damage to building structures. Damage primarily to unanchored mobile homes, shrubbery and trees; also, some coastal road flooding and minor pier damage.
Examples: RI Hurricanes-Bob 1991, Gloria 1985.
Lili 2002, Gaston 2004.

CATEGORY TWO
Wind Speed: 96-110 mph (83-95 kt)
Damage: Some roofing material, door and window damage to buildings; considerable damage to vegetation, mobile homes and piers. Coastal and low-lying escape routes flood in two to four hours before arrival of the center of the storm. Small craft in unprotected anchorages break moorings.
Examples: Frances 2004, Isabel 2003.

CATEGORY THREE
Wind Speed: 111-130 mph (96-113 kt)
Damage: Some structural damage to small residences and utility buildings with a minor amount of curtain wall failures. Mobile homes are destroyed. Flooding near the coast destroys smaller structures with larger structures damaged by floating debris. Terrain continuously lower than five feet above sea level may be flooded inland eight miles or more.
Examples: RI Hurricanes-The Great New England Hurricane of 1938, Carol 1954.
Katrina 2005, Ivan and Jeanne 2004, Keith 2000, Fran 1996 and Opal 1995.

CATEGORY FOUR
Wind Speed: 131-155 mph (114-135 kt)
Damage: More extensive curtain wall failures with some complete roof structure failure on small residences; major erosion of beaches. Major damage to lower floors of structures near the shore. Terrain continuously lower than ten feet above sea level may be flooded requiring massive evacuation of residential areas inland as far as six miles.
Examples: Charley 2004 and Hugo 1989.

CATEGORY FIVE
Wind Speed: 155 mph + (135+ kt)
Damage: Complete roof failure on many residences and industrial buildings. Some complete building failures with small utility buildings blown over or away. Major damage to lower floors of all structures located less than 15 feet above sea level and within 500 yards of the shoreline. Massive evacuation of residential areas on low ground within five to ten miles of the shoreline may be required.
Examples: Andrew 1992, Gilbert 1988 and Camille 1969.

Q: What's the difference between a watch and a warning?

A: A hurricane watch means residents in a designated coastal area could experience hurricane conditions within 36 hours. Families should enact their disaster action plan and begin to secure homes, vehicles and boats. Residents on barrier islands should consider evacuating. A hurricane warning indicates sustained winds of at least 74 mph are predicted for a designated area of the coastline within 24 hours. Residents should pay heed to a warning, complete disaster action plans and seek shelter in the safest location prior to the onset of tropical storm force winds.

Q: What are the main hazards associated with hurricanes?

A: **Storm Surge** - Storm surge is water that is pushed toward the shore by the force of the winds swirling around the storm. This advancing surge combines with the normal tides to create the hurricane storm tide, which can increase the average water level 15 feet or more.

Inland Flooding - During the last 30 years, inland flooding has been responsible for more than half the deaths associated with tropical cyclones in the United States.

High Winds - Hurricane force winds can destroy poorly constructed buildings and mobile homes. Debris such as signs, roofing material, and small items left outside become flying missiles in hurricanes.

Tornadoes - Hurricanes can produce tornadoes that add to the storm's destructive power. Tornadoes are most likely to occur in the right-front quadrant of the hurricane.

The National Weather Service used the Fujita Scale to measure tornado wind speed and damage until February 1, 2007, when the Enhanced Fujita Scale was implemented. The Enhanced Fujita (EF) Scale will continue to rate tornadoes on a scale from zero to five, but ranges in wind speed will be more accurate. The EF Scale also takes into account additional variables which will provide a more accurate indication of tornado strength. To learn more about the new EF scale, visit: **www.spc.noaa.gov/efscale/**.

Enhanced Fujita Scale

EF0 65-85 mph
EF1 86-110 mph
EF2 111-135 mph
EF3 136-165 mph
EF4 166-200 mph
EF5 over 200 mph

Q: What is the emergency response procedure when a hurricane strikes?

A: The state of Rhode Island uses a detailed response system and recovery action plan that involves close coordination with public agencies at the local level. Key players include local emergency management officials, the state director of emergency management and the governor.

The Federal Emergency Management Agency (FEMA) Director is responsible for the overall coordination of federal preparedness, response, recovery and mitigation activities.

The President of the United States may declare a federal emergency, and authorize disaster assistance such as food, counseling, temporary housing or other federal resources.

The chart on the page 26 outlines a generic response and recovery process when a hurricane or other natural disaster occurs. Please note that many of the activities may happen simultaneously.

NOTE: State disaster response continues on subsequent pages.

Q: Who is in charge of hurricane shelters?

A: The American Red Cross typically operates and staffs approved hurricane shelters in partnership with the state. The American Red Cross is not a government agency, but it is chartered by Congress to provide disaster relief. This includes providing shelter, food, and health and mental health services to address basic human needs.

The Red Cross also feeds emergency workers, handles inquiries from concerned family members outside the disaster area, provides blood and blood products to disaster victims, and helps those affected by disaster to access other available resources. Call **1-800-HELP-NOW** or one of the chapters listed at the back of this guide to learn more.

Q: What should residents do if their home is damaged or destroyed?

A: Homeowners should contact their insurance carrier as soon as possible to begin the claims process; however, standard homeowner insurance policies do not cover flood damage. Flooding is covered under separate policies administered by the National Flood Insurance Program.

Consumers can call toll-free **1-888-FLOOD29** for information on securing sufficient flood insurance before a storm threatens. New flood insurance policies carry a 30-day waiting period, and will not cover damage from an impending storm threat.

FEMA provides housing assistance for qualifying storm victims. Homeowners within a designated federal disaster area may call toll-free **1-800-621-FEMA (3362)** to register for assistance. Applicants should be prepared to describe losses and provide their Social Security Number, financial information, and directions to the damaged property.

RHODE ISLAND DISASTER RESPONSE CHRONOLOGY

Get Hurricane Ready Rhode Island!

Local First Response

Coastal Communities Activate Emergency Operations Centers

Activation of State Emergency Operations Center and Emergency Support Functions

Governor Declares State of Emergency

Pre-deployment of Resources and Staff

Post-Event Assessments

Request Federal Disaster Declaration

President Declares State of Emergency

Disaster Recovery Centers Established

Disaster Field Office Opened

Disaster Assistance Begin Programs

Long Term Recovery and Mitigation

CLOSE-OUT OF DISASTER

RHODE ISLAND EMERGENCY SUPPORT FUNCTIONS

State disaster response resources are organized into Emergency Support Functions (ESF) which manage and coordinate specific categories of assistance common to all disasters. Each ESF is headed by a lead organization responsible for coordinating the delivery of goods and services to the disaster area and is supported by numerous other organizations:

Transportation - Provide or obtain transportation support.
Lead: RI Department of Transportation (RIDOT)

Communications - Provide telecommunications, radio and satellite support.
Lead: RI Emergency Management Agency (RIEMA)

Public Works and Engineering - Provide support and restoration of critical public services, road and utilities.
Lead: RI Department of Transportation (RIDOT)

Information and Planning - Collect, analyze and disseminate critical disaster information to State Emergency Response members.
Lead: RI Emergency Management Agency (RIEMA)

Mass Care - Manage temporary sheltering, mass feeding and distribution of essential supplies for disaster victims.
Lead: RI Emergency Management Agency (RIEMA)

Resource Support - Provide logistical and resource support to other organizations through purchasing, contracting, renting and leasing equipment and supplies.
Lead: RI Emergency Management Agency (RIEMA)

Health and Medical Services - Provide health, medical care and social service needs.
Lead: RI Department of Health (RIDOH)

RHODE ISLAND EMERGENCY SUPPORT FUNCTIONS

Search and Rescue - Locate lost persons and victims trapped in collapsed structures and provide immediate medical care.
Lead: RI Emergency Management Agency (RIEMA)

Hazardous Materials - Respond to actual or potential hazardous material discharges and other situations threatening the environment.
Lead: RI Department of Environmental Management (RIDEM)

Food & Water - Secure bulk food, water and ice to support mass care sites.
Lead: RI Emergency Management Agency (RIEMA)

Energy - Support response and recovery from shortages and disruptions in supply and delivery of energy resources.
Lead: State Department of Energy

Public Information - Disseminate disaster related information to the public through media outlets.
Lead: RI Emergency Management Agency (RIEMA)

Volunteers and Donations - Coordinate utilization and distribution of donated goods and services.
Lead: RI Emergency Management Agency (RIEMA)

Law Enforcement & Security - Coordinate the mobilization of law enforcement and security resources.
Lead: Rhode Island State Police

Animal Protection - Provide rescue, protective care, feeding and identification of animals separated from their owners.
Lead: RI Department of Environmental Management (RIDEM)

Questions? FLASH® is ready to help!
1-877-221-SAFE
www.GetHurricaneReadyRI.org

The National Hurricane Center gives the storm a name from the list for the current year once a tropical storm reaches wind speeds of 39 mph and develops a counter-clockwise circulation.

The letters Q, U, X, Y, and Z are omitted from the list because so few names begin with those letters. Names associated with storms that have caused significant death and/or damage are usually retired.

2008	2009	2010
Arthur	Ana	Alex
Bertha	Bill	Bonnie
Cristobal	Claudette	Colin
Dolly	Danny	Danielle
Edouard	Erika	Earl
Fay	Fred	Fiona
Gustav	Grace	Gaston
Hanna	Henri	Hermine
Ike	Ida	Igor
Josephine	Joaquin	Julia
Kyle	Kate	Karl
Laura	Larry	Lisa
Marco	Mindy	Matthew
Nana	Nicholas	Nicole
Omar	Odette	Otto
Paloma	Peter	Paula
Rene	Rose	Richard
Sally	Sam	Shary
Teddy	Teresa	Tomas
Vicky	Victor	Virginie
Wilfred	Wanda	Walter

Record Storms

The following historical facts and figures are compiled from NOAA's National Hurricane Center Archives. Information listed in the table below represents Atlantic Basin (including the Atlantic Ocean, Caribbean Sea and Gulf of Mexico) storm data for the United States.

DEADLIEST

- **Galveston, Texas** - Category 4 Hurricane, Unnamed
- **1900**
- **8,000 - 12,000 estimated deaths**

COSTLIEST

- **Hurricane Katrina** - Category 3 at landfall
- **2005**
- **$81 billion in damages (estimated)**

MOST INTENSE

- **Florida Keys** - Category 5, Unnamed
- **1935**
- **Pressure at landfall: 892 Millibars**
- **26.35 Inches of Mercury**

U.S. Strikes By Decade (1901-2007)

The following historical facts and figures are compiled from NOAA's National Hurricane Center Archives. Information listed in the table below represents Atlantic Basin (including the Atlantic Ocean, Caribbean Sea and Gulf of Mexico) storm data for the United States.

1901-1910	**18**
1911-1920	**21**
1921-1930	**13**
1931-1940	**19**
1941-1950	**24**
1951-1960	**17**
1961-1970	**14**
1971-1980	**12**
1981-1990	**15**
1991-2000	**14**
2001-2007	**18**
	Total 185

Most U.S. Strikes By State (1851-2007)*

Florida **114**
Texas **61**
Louisiana **51**
North Carolina **46**
South Carolina **31**
Alabama **22**
Georgia **20**
Mississippi **16**
New York **12**
Virginia **12**
Connecticut **10**
Massachusetts **10**
Rhode Island **9**
Maine **6**
Delaware **2**
Maryland **2**
New Jersey **2**
Pennsylvania **1**

*NOAA / National Weather Service Tropical Prediction Center archives.

www.riema.ri.gov- This site offers statewide emergency management information straight from the source. Log onto this website to receive citizen emergency information including; hurricane information, state evacuation routes, and a list of emergency contacts.

www.ri.gov - The main Web portal to the State of Rhode Island. Search state departments and access e-government services. Find consumer-related information on health, safety and the environment.

www.flash.org - A leading source for the most current, accurate and reliable home safety information on the Web. Download free FLASH Cards for consumer tips on pet evacuation preparation; securing the home; as well as proper usage of sandbags and NOAA weather radios.

www.hrc.ri.gov- The State of Rhode Island Housing Resources Commission. View the Rhode Island standards and programs agency for housing issues, mitigation information and more.

www.ridart.org - Rhode Island Disaster Animal Response Team provides information to owners about their animals in an emergency.

www.ready.gov - This useful site offers hurricane preparedness tools such as creating a kit, devising a plan, and providing tips on staying informed. Ready Kids is a children's friendly website that provides fun, educational tips for kids, parents, and teachers to prepare for emergencies.

www.floodsmart.gov - The online home to the National Flood Insurance Program. Search this site for flood risks, insurance policies and how to prepare and recover from flood disasters.

www.redcross.org - The American Red Cross keeps residents informed on disaster response and recovery operations before, during and after the storm. This website is updated frequently and offers details on evacuation shelters, volunteer efforts and donation opportunities.

www.blueprintforsafety.org - The most comprehensive set of disaster-safe residential construction techniques available today - a best bet for home safety before the next storm. Research the best and most cost-effective window and door protection options for the home with custom shutter calculators.

Learn state-of-the-art techniques for securing the roof, bracing the frame, building a safe room and more.

www.nhc.noaa.gov - NOAA's experts at the National Hurricane Center are leading authorities on Atlantic Basin hurricanes. Log on to this website for current weather data, including storm warnings, watches and forecasts. View real-time radar and satellite imagery, detailed historical data and more.

www.fema.gov - One of the most complete disaster preparedness libraries on the Web. This site offers step-by-step instructions for preparing families and homes for storms, floods and other natural disaster scenarios.

Get the best prevention and mitigation ideas, including reliable information on disaster action plans, safe rooms and the National Flood Insurance Program.

www.petswelcome.com - An entire website dedicated to helping pet owners find suitable accommodations away from home. Check out travel information, nationwide hotel listings and message boards, or reserve a room online.

www.colorado.edu/hazards - The Natural Hazards Center at the University of Colorado is an international clearinghouse for information on natural hazards, such as hurricanes, tornadoes and floods. They offer a variety of useful resources to those interested in gaining knowledge about disasters.

www.weather.gov/boston - National Weather Service Forecast Office website which serves the entire state of Rhode Island.

STATE OF RHODE ISLAND EMERGENCY MANAGEMENT CONTACT INFORMATION

Rhode Island Emergency Management Agency (RIEMA)
645 New London Avenue
Cranston, RI 02920
Major General Robert T. Bray- Director
J. David Smith- Executive Director
(401) 946-9996 (main switchboard)
www.riema.ri.gov

RIEMA Public Information Officer
Steve Kass
(401) 462-7127

United Way Helpline
2-1-1

Rhode Island Department of Children, Youth & Families
101 Friendship Street
Providence, RI 02901-3716
(401) 528-3502
www.dcyf.ri.gov

State of Rhode Island Department of Environmental Management
DEM Headquarters Mailing Address
235 Promenade Street
Providence, RI 02908-5767
(**401) 222- 6800**
Emergency Phone: **401-222-3070**
Deaf/Hard of Hearing Relay Service: **711**
www.dem.ri.gov

STATE OF RHODE ISLAND EMERGENCY MANAGEMENT CONTACT INFORMATION

State of Rhode Island Office of the State Fire Marshal
118 Parade Street
Providence, RI 02909
(401) 462-4200
www.fire-marshal.ri.gov/

Rhode Island Department of Health
3 Capitol Hill
Providence, RI 02908
(401) 222-2231
www.health.ri.gov

Rhode Island State Police
311 Danielson Pike
Scituate, RI 02857-1907
(401) 444-1000
www.risp.ri.gov

National Weather Service Offices (covering Rhode Island)
445 Myles Standish Boulevard
Taunton, Massachusetts 02780
(508) 823-1900
www.weather.gov/boston

American Red Cross / Rhode Island Chapter
105 Gano Street
Providence, RI 02906
(401) 831-7700
www.riredcross.org

American Red Cross / East Bay Chapter
1015 Aquidneck Avenue
Middletown, RI 02842
(401) 846-8100
24 Hour Emergency Phone: **(401) 831-7700**

ACE USA
Clients receive individual 800 number

Allstate
1-800-ALLSTATE or
800-54STORM (800-547-8676)

Amica
800-24-AMICA

Andover Mutual
800-225-0770

Arch
800-817-3252

Atlantic Mutual
800-945-7461

Bituminous
800-678-3104, 800-822-2905

Church Mutual
800-554-2642

CHUBB
800-CLAIMS0 (800-252-4670)

EMC
800-556-7010

Encompass
800-588-7400

Farmers
800-435-7764

Fireman's Fund
888- FIREHAT (888-347-3428)

GEICO
800-841-3005

Hanover Insurance Group
800-628-0250

Harleyville
800-892-8877

The Hartford
800-243-5860

Hartford Steam Boiler Inspection and Insurance Co.
888-472-5677

Holyoke Mutual
800-225-2533

Liberty Mutual
800-2CLAIMS (800-225-2467)

Metropolitan Auto & Home
800-854-6011

Nationwide
800-421-3535

Narragansett Bay Ins. Co
800-343-3375

New London County
800-621-5410

Norfolk & Norfolk & Dedham
888-338-9737

One Beacon
877-248-4968

Providence Mutual
877-763-1800

Quincy
800-490-0047

SAFECO
800-332-3226

Selective
866-455-9969

Sompo Japan
800-444-6870

St. Paul Travelers
800-238-6225, 800-CLAIM33 (800-787-2851)

State Farm Insurance
800-SF-CLAIM (800-732-5246)

Travelers
800-CLAIM33

USAA
800-531-8222

XL
800-688-1840

Zurich
800-987-3373

NOTE: This list of insurance companies represents the major carriers writing property and casualty policies in Rhode Island. If your company is actively writing property and casualty polices in Rhode Island, and is not included in this listing, please contact FLASH® at **877-221-7233** to inquire about being included in the online edition of the RI One-Stop Hurricane Resource Guide.

FEMA - Are You Ready?
www.fema.gov/areyouready/

FEMA - National Flood Insurance Program
www.floodsmart.gov

Federal Alliance for Safe Homes, Inc.-FLASH®
www.flash.org

Blueprint for Safety
www.blueprintforsafety.org

RIEMA-Rhode Island Emergency Management Agency
www.riema.ri.gov

National Organization on Disability
www.nod.org

NOAA - National Hurricane Center
www.nhc.noaa.gov

NOAA - Weather Radio
www.nws.noaa.gov/nwr

NOAA - National Weather Service Turn Around Don't Drown
www.srh.weather.gov/tadd

Rx Response
www.RxResponse.org


NOTES
Get
Hurricane
Ready
Rhode Island!

Atlantic Basin Hurricane Tracking Chart

National Hurricane Center

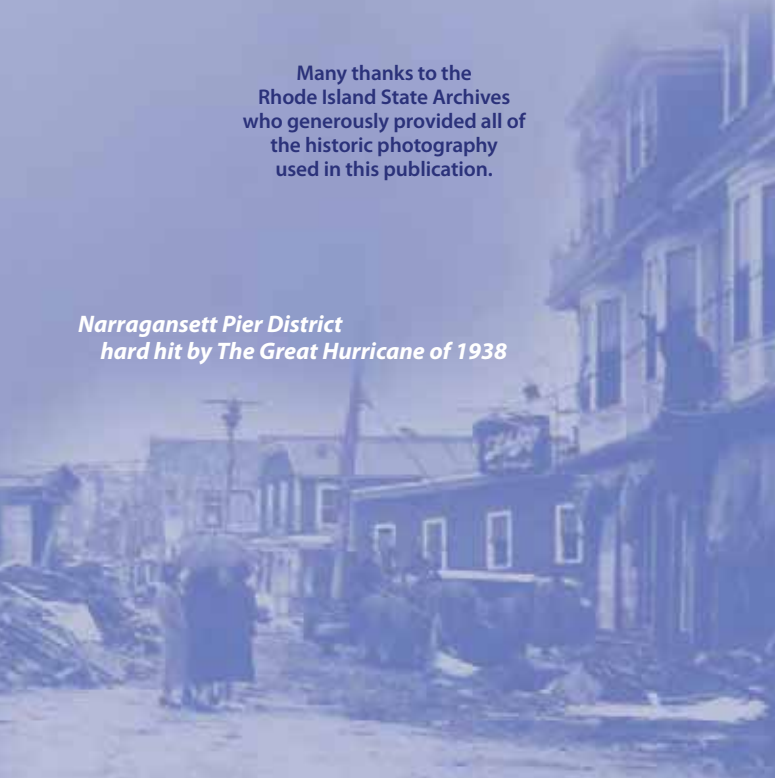
Miami, Florida

Rhode Island Emergency Management Agency
645 New London Avenue
Cranston, RI 029208

Strengthening Homes and Safeguarding Families
FLASH®
FEDERAL ALLIANCE FOR SAFE HOMES
www.flash.org

Federal Alliance for Safe Homes
1427 East Piedmont Drive, Suite 2
Tallahassee, FL 32308

Many thanks to the Rhode Island State Archives who generously provided all of the historic photography used in this publication.



Narragansett Pier District hard hit by The Great Hurricane of 1938

One-Stop Hurricane Resource Guide

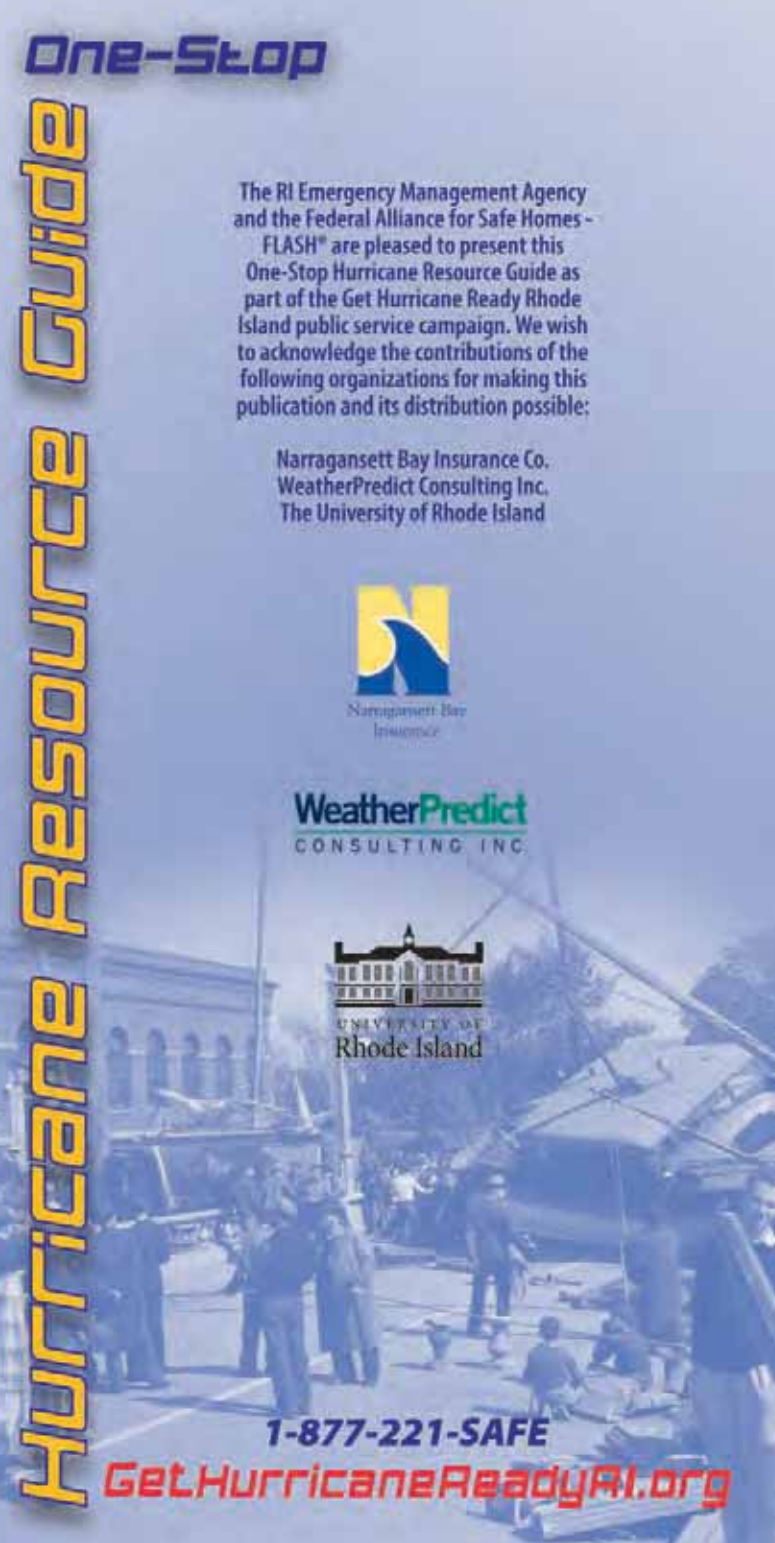
The RI Emergency Management Agency and the Federal Alliance for Safe Homes - FLASH® are pleased to present this One-Stop Hurricane Resource Guide as part of the Get Hurricane Ready Rhode Island public service campaign. We wish to acknowledge the contributions of the following organizations for making this publication and its distribution possible:

Narragansett Bay Insurance Co.
WeatherPredict Consulting Inc.
The University of Rhode Island

Narragansett Bay Insurance

WeatherPredict CONSULTING INC.

University of Rhode Island



1-877-221-SAFE

GetHurricaneReadyRI.org